

Title (en)

METHOD FOR COMBINING A PLURALITY OF EYE IMAGES INTO A PLENOPTIC MULTIFOCAL IMAGE

Title (de)

VERFAHREN ZUM KOMBINIEREN VON MEHREREN AUGENBILDERN IN EINER PLENOPTISCHEN BILDES MULTIFOKALE

Title (fr)

PROCÉDÉ PERMETTANT DE COMBINER UNE PLURALITÉ D'IMAGES DE L' IL EN UNE IMAGE MULTIFOCAL PLÉNOPTIQUE

Publication

**EP 2787877 A4 20150812 (EN)**

Application

**EP 12855019 A 20121208**

Priority

- US 201161568851 P 20111209
- US 2012068646 W 20121208

Abstract (en)

[origin: WO2013086473A1] A method for combining a plurality of eye images into a plenoptic multifocal image that includes registering the eye images with a plurality of frames into one or more eye image sets with a processor and a memory system, aligning each of the eye images in each of the one or more image sets with a selected reference that resides on the memory system with the processor and determining one or more in-focus regions of the eye images by calculating one or more gradient images while ignoring noise and other imaging artifacts. The method also includes identifying the one or more in-focus regions with highest resolution from the one or more gradient images and selecting one or more corresponding in-focus intensities from the frames to combine into a plenoptic multifocal image with a higher resolution than the eye images, the frames and the one or more eye image sets.

IPC 8 full level

**A61B 3/14** (2006.01); **A61B 1/05** (2006.01); **A61B 3/10** (2006.01)

CPC (source: EP US)

**A61B 3/12** (2013.01 - US); **A61B 3/14** (2013.01 - EP US); **G06T 3/14** (2024.01 - EP US); **G06T 5/50** (2013.01 - EP US); **G06T 2200/21** (2013.01 - EP US); **G06T 2207/10148** (2013.01 - EP US); **G06T 2207/20208** (2013.01 - EP US); **G06T 2207/30041** (2013.01 - EP US)

Citation (search report)

- [E] WO 2013067468 A1 20130510 - HOGAN JOSH [US]
- See references of WO 2013086473A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**WO 2013086473 A1 20130613**; AU 2012347482 A1 20140710; AU 2012347482 B2 20170330; BR 112014013737 A2 20180904; BR 112014013737 B1 20220208; CA 2858198 A1 20130613; CA 2858198 C 20200630; CN 104203081 A 20141210; CN 104203081 B 20161228; DK 2787877 T3 20220620; EP 2787877 A1 20141015; EP 2787877 A4 20150812; EP 2787877 B1 20220406; ES 2917892 T3 20220712; IL 232982 A0 20140731; IL 232982 B 20180830; JP 2015506730 A 20150305; KR 20140105816 A 20140902; MX 2014006760 A 20150303; MX 337930 B 20160328; US 2013169934 A1 20130704; US 8814362 B2 20140826

DOCDB simple family (application)

**US 2012068646 W 20121208**; AU 2012347482 A 20121208; BR 112014013737 A 20121208; CA 2858198 A 20121208; CN 201280069181 A 20121208; DK 12855019 T 20121208; EP 12855019 A 20121208; ES 12855019 T 20121208; IL 23298214 A 20140605; JP 2014546164 A 20121208; KR 20147018867 A 20121208; MX 2014006760 A 20121208; US 201213708979 A 20121208